

REMARKS

Claims 1 and 3-14 are pending. By this Response, claim 1 is amended and claim 2 is canceled. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Office Action rejects claim 1 under 35 U.S.C. §103(a) as being unpatentable over Kojima, et al. (U.S. Patent No. 6,313,816) and Berryman, et al. (U.S. Patent No. 6,583,791); claims 2-4 under 35 U.S.C. §103(a) as being unpatentable over Kojima, Berryman and Greene, et al. (U.S. Patent No. 6,243,059) and claims 6-14 under 35 U.S.C. §103(a) as being unpatentable over Kojima, Greene and Aloni, et al. (U.S. Patent No. 6,219,011). These rejections are respectfully traversed.

For reasons of brevity, applicants remarks filed on January 23, 2004 in regard to the references applied in the outstanding Office Action are hereby incorporated by reference.

Claim 1 recites, inter alia, a memory portion for storing display characteristics information of said light emitting portion for each of said plurality of said display units and further storing a chromaticity conversion parameter obtained on the basis of each of said stored display characteristics information from said plurality of display units, said display characteristics information is continuously stored in said memory portion even after said chromaticity conversion parameter is obtained ... and an operation portion receiving chromaticity range information on a predetermined chromaticity range including a

chromaticity range common to said plurality of display units constituting said display portion and said display characteristics information, for obtaining said chromaticity conversion parameter on the basis of said chromaticity range information and said display characteristics information.

Claim 6 recites, *inter alia*, a chromaticity range determination portion receiving said display characteristics information from each of said plurality of display units, for determination a predetermined chromaticity range including a chromaticity range common to said plurality of display units on the basis of all said display characteristic information.

Claim 10 recites, *inter alia*, a chromaticity range determination portion receiving said display characteristics information from each of said plurality of display units, for determining a predetermined chromaticity range including a chromaticity range common to said plurality of display units on a basis of all said display characteristics information, and said operation portion receives chromaticity range information on said predetermined chromaticity range and said display characteristics information on each of said plurality of display units, for obtaining said chromaticity conversion parameter for each of said plurality of display units on the basis of said chromaticity range information and said display characteristics information.

The embodiments described by the features recited above in independent claims 1, 6 and 10 provide a device in which a chromaticity range that is common to all units is obtained based on display characteristics information. Thus, every

display unit provides display characteristic information from which a chromaticity range is derived. The common chromaticity range is then used in combination with display characteristics from all of the display units to obtain a chromaticity conversion parameter for each display unit.

None of the applied references alone or in combination teach the above novel features recited in the claims.

Kojima measures the characteristics of a RGB trio or red, green and blue characteristics of a pixel. Each of these RGB trios have attached to them an individual chromaticity correction coefficient. See column 3, lines 4-6. The RGB data is corrected in Kojima individually for each pixel using the individual correction coefficient. Kojima does not provide a chromaticity conversion parameter obtained from the display characteristics for each display unit and a derived common chromaticity range.

Further, the display unit of claim 1 is different from the RGB trio of Kojima. Kojima discloses a chromaticity correction for an RGB trio. However, Kojima fails to teach or suggest a chromaticity correction for display units being comprised of a number of pixels.

Berryman teaches two techniques for correcting variations in LED's. The first technique adds resistors and switches to the LED display so that the LED's can be modified by changing the resistor values. Therefore, individual LED characteristics do not have to be used to correct the LEDs. See column 3, lines 15-25.

The second technique also involves adding resistors and switches to an LED display. Stored calibration data about each individual characteristics are used to calculate durations of current flow to each LED. This is accomplished individually for each LED. See column 3, lines 29-50.

Nowhere does Berryman teach or suggest using characteristic information from every display unit to obtain a common chromaticity range. Further, Berryman does not teach or suggest using the common range with the display characteristics information from all display units to obtain a chromaticity conversion parameter for the entire display unit.

Further, Greene fails to teach applicant's claimed features. Greene teaches color correction using adjacent pixel values. Color is corrected across the display from pixel to pixel based on the color values of the adjacent pixel. Color gamuts for the RGB (red, green and blue) for each pixel are compared with neighboring pixels to obtain corrected values which are then used to correct each adjacent pixel. This can be done uniformly through each pixel or in parallel through rows of pixel. See column 11 through column 12, particularly column 12, lines 23-35.

Greene fails to teach or suggest the combination of using display characteristic information from each display unit along with a common chromaticity range derived from all display characteristic information for each display unit to obtain a uniform chromaticity conversion parameter.

In contrast to the presently claimed invention, Greene measures each pixel against adjacent pixels to correct color and does not obtain all display

information. Further, Greene never obtains a common characteristic range based on all display characteristic information. Thus, Greene cannot, alone or in combination, obtain a chromaticity conversion parameter, as claimed by applicants.

Finally, the Office Action alleges that Aloni discloses the claimed display control device. It appears that the Examiner is correlating the “display unit” in claims 6 and 10 with the “projection/imaging module” of Aloni and the “display control device” recited in claims 6 and 10 with the “system computer” of Aloni. As illustrated in Fig. 2 of Aloni, the system computer appears to be interactively communicable with the projection/imaging module. However, the display control device of claims 6 and 10 receive the display characteristics information from each of the display units as well as being interactively communicable with the display units. Aloni does not teach or suggest that the system computer receives display characteristics information from the projection/imaging module. Thus, the system computer of Aloni does not correspond to the display control device, recited in claims 6 and 10.

In view of the above, Kojima, Greene, Berryman and Aloni fail to teach each and every claimed feature alone or in combination as required. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusion


For at least these reasons, it is respectfully submitted that claims 1-6 and 8-14 are distinguishable over the applied art. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)